

Serial No. 10/730,512

Atty. Docket 29617/37215B

REMARKS

This paper is being presented in response to an official action dated May 31, 2004, wherein claims 1-8 and 28-36 were pending; claims 29-36 were allowed; claims 1-3, 7, 8, and 28 were rejected; and claims 4-6 were objected to but found allowable.

By the foregoing amendments, the specification has been amended to correct a typographical error in a reference number, and to provide explicit antecedent basis for the claimed subject matter in the written description portion of the specification. The amendments do not introduce new matter, and are supported by the figures referenced (Figs. 2, 4, and 5). Entry of the amendments is respectfully requested to comply with the objection raised in the final action, and to put the case in better form for appeal or allowance.

Claims 1-8 and 28-36 (17 total; 2 independent) are still pending, and no fee is believed to be due.

The Commissioner is hereby authorized to charge any deficiency in connection with this Amendment, or any additional fees which may be required in connection with this Amendment, to Deposit Account No. 13-2855.

Entry of the amendments to the specification, reconsideration of the rejected claims, and allowance of all pending claims 1-8 and 28-36 are respectfully requested in view of the following remarks.

Objection to the Specification

The specification has been amended as described above. The objection can be withdrawn.

Rejections under 35 U.S.C. § 103(a)

Claims 1-3, 7, 8, and 28 were rejected under 35 U.S.C. § 103(a) in view of Kauffman U.S. Patent No. 6,183,155.

The rejection is traversed because: (1) the Kaufmann '155 patent does not disclose or suggest the passage mean thickness recited, and instead teaches a different range; (2) the Kaufmann '155 patent does not disclose or suggest an instrument as claimed having porous tip disposed within a feed tube; and (3) the Kaufmann '155 patent does not disclose or suggest an instrument as claimed wherein the portion of the tip disposed within the feed tube extends a portion of the length of the feed tube.

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Passage Dimension

The Kaufmann '155 patent does not render the claims obvious because it does not disclose or suggest an instrument as claimed having the recited passage with "a mean thickness of about 0.010 in. to about 0.025 in."

The official action acknowledges that the Kaufmann '155 patent does not disclose all elements of claim 1, including the recited passage.

Although the Kaufmann [sic] does not specifically disclose the dimension of the passage 24 to be in the range between about 0.010 in to about 0.025 in, it would have been obvious to one of ordinary skill in the art [sic] at the time the invention was made to select a thickness for the passage within a certain range to best fit a particular feed tube and writing tip design and to optimize the performance. See *In re Aller*, 105 USPQ 233, using the optimum or workable ranges involves only routine skill in the art.

However, the official action overlooks the fact that the Kaufmann '155 patent does specifically disclose the dimension of the passage 24. See column 3, line 65, to column 4, line 4:

As is immediately apparent from FIGS. 1 and 4, the passages 20 in FIG. 1 and 24 and 26 in FIG. 4 are of considerable axial length which in normal writing implements is in the range that is at least greater than 0.5 cm whereby it is possible to circumvent the flow resistant of the wick 10 or the total flow resistance for the liquid to be applied can be considerably reduced.

Furthermore, the dimension specified of "greater than 0.5 cm" (0.2 inches) is outside the claimed range of about 0.010 in. to about 0.025 in.

The reason for the difference in dimension is apparent from the difference in function of the instruments. As described in the Kaufmann '155 patent, the passages 24 and 26 in Fig. 4 serve the same function as the passage 20 in Fig. 1. See column 3, lines 55-64. The passage 20 has a relatively low capillarity (*i.e.*, large dimension) "so that liquid passes through the passage 20 directly from the liquid supply 6 to the writing tip 12." See column 3, lines 5-9. As a result of the large dimension of the passages of Kaufmann '155, the passages are not open-ended, but instead are blind passages. See column 3, lines 33-34 and 57-58, and Figs. 1 and 4.

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The instrument of the Kaufmann '155 patent functions by sucking air bubbles in through the opening 18 in the divider wall towards the rear of the instrument. See column 3, lines 22-25, column 2, lines 53-54, and Figures 1 and 4.

In contrast, the claimed instrument functions by providing a bubble separation area at the tip-end of the instrument (see page 4, lines 15-20, and page 8, line 32, to page 9, line 1, of the application as filed) whereby air is sucked through the passage 66 formed between the feed tube 36 and the porous tip because the feed tube 36 provides a barrier for the buffer 60 (See, *e.g.*, Figure 4 and the description at page 13, line 29, to page 14, line 6).

Accordingly, the Kaufmann '155 patent does not render the claims obvious because it does not disclose or suggest an instrument as claimed having the recited passage with "a mean thickness of about 0.010 in. to about 0.025 in," and instead teaches against the claimed instrument.

The official action cites to *In re Aller*, 105 USPQ 233 (CCPA 1955) to stand for the proposition that "using the optimum or workable ranges involves only routine skill in the art." It is respectfully submitted that the cited case does not stand for the broad proposition advanced. *In re Aller* merely supports the well-established principle that it is *prima facie* obvious to optimize a result-effective variable within prior art conditions. MPEP § 2144.05. A recognition in the art that the variables are result-effective is necessary to support a *prima facie* case of obviousness. *Id.*, citing *In re Antonie*, 559 F.2d 618, 195 USPQ 6 (CCPA 1977) "(The claimed wastewater treatment device had a tank volume to contractor area of 0.12 gal./sq. ft. The prior art did not recognize that treatment capacity is a function of the tank volume to contractor ratio, and therefore the parameter optimized was not recognized in the art to be a result- effective variable.)"

In the present case, the principle supported by *In re Aller* is unavailing because the Kaufmann '155 patent actually discloses a different range from the claimed range, and thereby teaches away from the claimed invention.

In view of the foregoing, reconsideration and withdrawal of the rejections are requested.

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Porous Tip Disposed Within Feed Tube

The Patent Office continues to mischaracterize the Kaufmann '155 patent as describing a porous tip disposed within a feed tube. The rejection on this basis is traversed, and reconsideration is requested.

The action continues to refer to element 18 of the Kaufmann '155 patent as a feed tube (see page 2 of the official action, three and five lines from the bottom). Instead, element 18 is an opening in the divider wall 4. See column 1, lines 19-20, of Kaufmann '155.

The Kaufmann '155 patent does not disclose a feed tube. The official action implicitly admits as much, but does not justify continuing the rejection on the basis of the separate, independent U-shaped portions shown in Fig A-A' of Fig. 4.

To establish a *prima facie* case of obviousness, not only must there be (1) some motivation to modify the reference and (2) a reasonable expectation of success, but also (3) the prior art reference(s) must teach or suggest all the claim elements. The teaching or suggestion to make the claimed combination and the reasonable expectation of success must both be found in the prior art, and not based on the applicant's disclosure. *In re Vaeck*, 947 F.2d 488, 20 USPQ2d 1438 (Fed. Cir. 1991). See MPEP §§ 2142-2143.

A *prima facie* case of obviousness has not been established because the prior art does not teach or suggest a feed tube according the claim, and there is no motivation to modify the reference with a reasonable expectation of success. The official action is facially defective, in that it admits Kauffman '155 does not disclose a feed tube, but the action makes no attempt to support a *prima facie* obviousness rejection based on motivation to modify the reference with a reasonable expectation of success.

Furthermore, as there is no feed tube in Kaufmann '155, there can be no porous tip "disposed within" a feed tube.

As described above, the function of the instrument of the Kaufmann '155 patent and the claimed instrument are different, at least in that the Kaufmann instrument provides a bubble separation area at the rear of the instrument, towards the reservoir, whereas the claimed instrument, having an actual "feed tube" with a porous tip disposed therein brings the bubble separation point down towards the tip end of the instrument. See Kaufmann '155, column 3, lines 20-2-25: "That ensures that, when liquid issues from the writing tip 12 when the implement is used for writing on a support, air bubbles are sucked in through the opening

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18 into the volume of the liquid 6." Because the Kaufmann '155 patent specifically teaches that the bubble separation point is at the opening 18, there is no motivation to modify the instrument of Fig. 4 to use an actual feed tube instead of the U-shaped portions shown.

**The Portion of the Tip Disposed Within Feed Tube
Extends a Portion of the Length of the Feed Tube**

Claim 1 was previously amended to further distinguish Kaufmann '155 by reciting that the portion of the tip disposed within the feed tube extends a portion of the length of the feed tube. Thus, even if the wick 10 of Kaufmann '155 is considered as disposed within a feed tube, it is distinguished because it extends the entire length of the tube (the argument in this section is not to be interpreted as conceding that Kaufmann '155 discloses or suggests a feed tube according to the claims).

The response in the official action is set forth below.

The phrase "the portion of the tip disposed within the feed tube" does not limit the tip to a definite or finite length or location. The wick 10 of Kaufman [sic] can include portions that are disposed in the feed tube and one of the portions of the wick 10 extends a portion of the length of the feed tube.

As it is presently understood, the rejection is based on the assertion that the wick 10 of Kaufmann can "include" portions that are disposed in the feed tube and that "one of the portions of the wick" extends a portion of the length of the feed tube.

The rejection is based on a misreading of the claim, and is thus traversed. The claim recites that "the" portion of the tip disposed within the feed tube extends a portion of the length of the feed tube. The wick 10 of Kaufmann '155, Fig. 4, includes a portion that is not disposed within the feed tube (e.g., tip 12 and the lower portion held by front portion 8), and a portion that is, *arguendo*, disposed within a feed tube from opening 18 to front portion 8. Thus, "the portion" of the wick 10 which is disposed within the feed tube extends the entire length of the feed tube, and is thus distinguished from the claim.

The official action appears to wish to divide the wick 10 into hypothetical portions that are disposed within the feed tube, and then find that the claim reads on one such portion. This approach effectively re-writes the claim. The claim, as drafted, recites that "the portion" of the tip which is disposed within the feed tube extends a portion of the length of the feed tube. Accordingly, the entire portion disposed within the feed tube must be considered.

Reconsideration and withdrawal of the rejection on this basis are requested.

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CONCLUSION

In view of the foregoing, entry of the amendment to the specification, reconsideration and withdrawal of the rejections, and allowance of all pending claims 1-8 and 28-36 are respectfully requested.

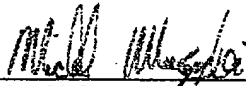
Should the examiner wish to discuss the foregoing, or any matter of form or procedure in an effort to advance this application to allowance, the examiner is urged to telephone the undersigned attorney at the indicated number.

Respectfully submitted,

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By



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